

1. (Amended) A microscope slide stainer with random access slide staining capability, comprising:

a moving platform adapted to support a plurality of microscope slides bearing biologic samples;

a plurality of heating element sets, each set having at least one heating element and each set heating at least one slide, each of said heating element sets having the capability of heating to different temperatures;

3 a temperature controller [electronic circuit that provides] that regulates electrical power to said heating element sets, said temperature controller being mounted on the moving platform; and,

a user interface in communication with the temperature controller [electronic circuit] and through which a desired temperature for microscope slides is specified, said user interface being mounted off of the moving platform and communicating data to the temperature controller on the moving platform to regulate the electrical power to the heating element sets.

8. (Twice amended) A microscope slide stainer with random access slide staining capability, comprising:

a plurality of microscope slides bearing biologic samples, positioned on a moving platform;

32 a plurality of heating element sets on the moving platform, each set having at least one heating element and each set capable of heating at least one slide, each capable of heating to a temperature distinct from the temperature of other heaters;

a temperature controller that regulates electrical power to said heating element sets, said temperature controller being mounted on the moving platform;

a user interface through which a desired temperature for each microscope slide is specified, said user interface being mounted off of the moving platform and said user interface comprising electronic circuitry which communicates data to the temperature controller on the moving platform to regulate the electrical power to the heating element sets ; and,

a group of conductors, for providing an electrical connection between the [heating elements] temperature controller on the moving platform and the user interface, the

22 number of conductors in said group of conductors being less than the number of heater element sets.

10. (Twice amended) An automated device for preparation or incubation of biologic samples, comprising:
- a moving platform adapted to support a plurality of biologic samples;
  - a plurality of heaters positioned on the moving platform so as to provide heat to one or more samples;
  - a computer that specifies the desired temperature for each heater, said computer being mounted off of the moving platform;
  - independent heating control to each of said heaters capable of heating the heaters to different temperatures, said heating control comprising:
    - a plurality of temperature controller electronic circuits mounted on the moving platform, each supplying electrical power to at least one heater; and
    - a data communication link between the computer and each of said temperature controller electronic circuits through which each temperature controller electronic circuit receives data from the computer so that each of said temperature controller electronic circuits decodes the temperature data and provides an appropriate amount of electrical power to each of said heaters so that each heater is heated to the computer-specified temperature.

13. (Amended) A microscope slide stainer with random access slide staining capability comprising:
- a moving platform adapted to support a plurality of microscope slides bearing biological samples;
  - a plurality of heating means, each for heating at least one slide, each of the heating means having the capability of heating to different temperatures;
  - temperature controller means for [providing] regulating electric power to the heating means, said temperature controller means being mounted on the moving platform; and
  - user interface means in communication with the temperature controller means for specifying a desired temperature for each microscope slide, said user interface means